

ABSTRACT OF THE DISCLOSURE

Disclosed is a nitride-based semiconductor device including a first nitride semiconductor layer doped with an n type impurity, an active layer formed on the first nitride semiconductor layer, the active layer including a plurality of quantum well layers and a plurality of quantum barrier layers alternately laminated over one another, at least one of the quantum layers being doped with the n type impurity, and a nitride semiconductor layer formed over the active layer, and doped with a p type impurity. The quantum barrier layer doped with the n type impurity includes an internal layer portion doped with the n type impurity, and an anti-diffusion film arranged at an interface of the quantum barrier layer with an adjacent one of the quantum well layers, the anti-diffusion film having an n type impurity concentration lower than that of the internal layer portion.